

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	
	)	
Forward-Looking Mechanism for High-Cost	)	CC Docket No. 97-160
Support for Non-Rural LECs	)	
	)	
Common Carrier Bureau Seeks Comment	)	DA 98-1587
On Model Platform Development	)	
	)	

**WESTERN WIRELESS CORPORATION  
COMMENTS ON MODEL PLATFORM DEVELOPMENT**

Western Wireless Corporation ("Western Wireless"), by its attorneys,  
submits these comments in response to the Public Notice, DA 98-1587, released  
August 7, 1998. 1/

**Introduction**

Western Wireless is a cellular and personal communications service  
("PCS") carrier specializing in the provision of high-quality, affordable, and reliable  
wireless services to subscribers in both rural/high-cost and higher-density urban  
areas. Western Wireless currently provides commercial mobile radio service

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1/ Public Notice, *Common Carrier Bureau Seeks Comment on Model Platform Development*, CC Docket Nos. 96-45 & 97-160, DA 98-1587 (released Aug. 7, 1998) ("Public Notice").

("CMRS") to more than 700,000 subscribers under licenses in 22 states, covering over 60 percent of the continental United States, as well as Hawaii. In some regions, we believe it will be less costly to provide supported telecommunications services using wireless technologies than by using the wireline systems of incumbent local exchange carriers ("ILECs"). Thus, Western Wireless is seriously interested in providing universal service and helping realize the goals of Section 254 of the Act.

Western Wireless is participating in this proceeding to advance the overall policy goal of *technological and competitive neutrality* in the system for supporting universal service in high-cost and rural areas. <sup>2/</sup> To achieve this goal, the Commission must ensure, first, that consumers in high-cost and rural areas have the right to choose to obtain supported services from CMRS providers and other new entrants as well as from ILECs. Second, there must be parity between the revenue support available to all eligible telecommunications carriers, regardless of those carriers' technologies, rate structures, or regulatory status. Third, support must be available for mobile, as well as stationary, services that meet the Commission's definitions of supported universal service, and for wireless as well as wireline local loops.

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<sup>2/</sup> This goal already has been endorsed by the Commission and the Joint Board. *Federal-State Joint Board on Universal Service*, First Report and Order, 12 FCC Rcd 8776, 8858, 8932, ¶¶ 145, 287 (1997), *pet. for review pending*.

### The HAI Wireless Model

The Commission has observed that “to the extent practical, the selected mechanism should estimate the cost of providing the supported services using wireless technology in areas where wireless technology is likely to be the least-cost, most efficient technology.” <sup>3/</sup> At the same time, the Commission stated that it had received “almost no information regarding how to estimate such costs,” and sought comment on “including an additional component in the mechanism that would compare the cost of providing service via a wireless network with the cost of providing service via a wireline network and would choose the lowest-cost technology to calculate the costs of providing the supported services.” <sup>4/</sup>

Western Wireless is endeavoring to fill this gap. We have retained HAI Consulting, Inc. to design a wireless cost model. This model estimates the cost of providing universal service over wireless networks in each ILEC wire center area, making it possible to determine whether it is less costly to provide service in that area using wireline technology (as projected by the model or platform to be selected by the Commission) or using wireless technology (projected by the HAI wireless cost model). The HAI wireless cost model can be used in conjunction with whatever platform or hybrid mechanism that the Commission selects to estimate

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<sup>3/</sup> *Federal-State Joint Board on Universal Service, Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket Nos. 96-45 & 97-160, Further Notice of Proposed Rulemaking, 12 FCC Rcd 18514, 18555, ¶ 99 (1997).

<sup>4/</sup> *Id.*

the forward-looking cost, based on the most cost-effective technology, of providing universal service.

While the HAI wireless cost model is still in an early stage of development, Western Wireless believes that it will show that wireless technology is the least-cost technology in a substantial proportion of high-cost exchanges of non-rural ILECs as well as "rural telephone companies." Western Wireless intends to submit the actual model to the Commission within the next few months, and will provide additional information in the near term. We believe that this wireless cost model can be developed in time to incorporate its results as a factor in determining the level of non-rural ILEC high cost support beginning in July 1999.

Accordingly, Western Wireless strongly agrees with the Commission's tentative conclusion that, in geographic areas where the cost of wireless technology is less than the cost of wireline technology, "providing support based on the cost of a wireless network to provide the supported services would meet the statutory directive that support be 'sufficient.'" 5/ Moreover, the Commission *cannot* ignore the results of wireless cost models, because "basing support solely on wireline costs, when wireless technology may offer a less expensive option," certainly would *not* "be consistent with the Commission's conclusion that the mechanism should use the least-cost, most-efficient . . . technology available." 6/

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5/ *Id.*, 12 FCC Rcd at 18556, ¶ 101.

6/ *Id.*

### Features of the HAI Wireless Cost Model

The HAI wireless cost model estimates the total service cost, using wireless technology, of providing telecommunications in each ILEC wire center area. The model can reflect the engineering features of AMPS (*i.e.*, analog cellular) technology, which tends to be the least-cost wireless technology in high-cost and rural areas, or can reflect other technologies, such as various formats of digital cellular and PCS.

The HAI wireless cost model uses the switching, transport, and signalling information generated by the standard HAI wireline model, as well as standard expense-to-investment and uncollectible factors. The principal difference is the use of wireless technology to estimate “loop” costs. We believe the wireless model could be used as a “module” in connection with whatever basic wireline platform the Commission selects.

The model uses several conservative assumptions to project the costs of universal service using wireless technology. First, the model examines the cost of providing *fixed* wireless local loop service, which is more costly to deploy than *mobile* wireless service. The additional cost is due in part to the cost of special customer premises equipment (“CPE”) used for converting signals from the AMPS format to the format used by standard wireline telephones. In addition, the model projects traffic loads, and the necessary infrastructure to handle such traffic (including cell sites and backhaul facilities), based on the amount of traffic that

users typically generate on wireline telephone networks, even though wireless mobile users typically generate significantly less traffic.

Two of the key factors in the model are the geographical location of customers <sup>7/</sup> and the traffic generated by those customers, which together are the main determinants of the number and location of cell sites. In turn, the geographic area covered by each cell site is correlated with the height of the tower, which is an important cost component. The model also accounts for the costs of microwave or landline backhaul from cell sites to wireless switching offices. The cost of spectrum is estimated based on data from the Broadband PCS D-E-F bands spectrum auctions, per-pop bid amounts, adjusted to reflect the difference between the amount of spectrum available in the D-E-F bands and that available to RSA cellular operators.

A summary presentation regarding the model is attached as Appendix A.

### **Platform Issues**

The Public Notice seeks comment on geocoded customer location data and other approaches for modeling the location and grouping of customers. Western Wireless observes that the location of customers may be less significant with respect to the wireless cost model than it is for wireline cost models, for several reasons.

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<sup>7/</sup> We discuss the customer location issues raised in the Public Notice in the following section.

First, while customer location is a relevant factor in the cost of wireless service, it is less significant as a determinant of the total cost of service for wireless than for wireline service, due to obvious technological differences. In particular, given that the HAI wireless model estimates the cost of *total* service over a wireless network (*i.e.*, like the wireline models, it assumes that all customer demand is served by the wireless network), traffic capacity tends to overwhelm customer location and grouping as the most significant factor in determining the number of cell sites, in most cases for which the model has been run to date.

Moreover, once the assumption used in the HAI Wireless Model of *fixed* wireless service is relaxed, the fact that customers may use wireless telecommunications on a *mobile* basis renders the locations of their residences less significant as a cost determinant. For these reasons, the exact methodology used to determine customer location and grouping is less significant -- and requires less precision -- for the wireless model than for the wireline models.

### Conclusion

In sum, wireless carriers like Western Wireless can play a significant role in providing supported universal service in high-cost areas. The wireless cost model that we are preparing to submit will demonstrate that wireless carriers can provide universal service, in a significant number of areas, more efficiently and at a lower cost than wireline ILECs. The Commission must take into account these wireless cost factors in its process of analyzing platforms and cost models for determining the level of support in high-cost areas. This will ensure that the total

cost of the high-cost support program is based on the most efficient and least costly technology -- and will empower Americans in high-cost areas to choose their universal service from a range of competing providers and technologies.

Respectfully submitted,

WESTERN WIRELESS CORPORATION

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Attorneys for Western Wireless Corp.

Dated: August 28, 1998



# *HWM*

## *HAI Consulting, Inc. Wireless Model*



Washington D.C.

August 26, 1998



## *HWM Overview*

- ◆ Development sponsored by Western Wireless Corporation
- ◆ Engineering and cost model that calculates the cost of providing wireless local access
- ◆ Examines AMPS technology (cost effective in low density areas)
- ◆ Uses inputs from HM 5.0a wireline model results

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## *HWM Features*

- ◆ Incorporates cluster, cost and investment data from HM5.0a
- ◆ Provides results by state and wire center
- ◆ Estimates wireline and wireless investment, monthly costs and USF subsidy levels
- ◆ Provides data suitable for mapping

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## *HWM Approach and Modeling Environment*

- ◆ “Bottom Up” modeling process
- ◆ Uses Cluster data and current wireline access traffic loads to determine cell site, radio equipment and backhaul requirements
- ◆ Integrates transport, switching, signaling and other cost data from HM5.0a
- ◆ Model developed using Microsoft Excel and Access

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## *Data Pre-processing*

- ◆ Before creating a specific state model, data “pre-processing” is required
- ◆ Cluster Pre-processing (MS Access)
  - ◆ Pulls data for a state from HM 5.0a Cluster database
  - ◆ Based technology specific engineering parameters, clusters are analyzed and divided by line count
  - ◆ Cell site coverage and capacity requirements are determined
  - ◆ Data written to an Excel spreadsheet and copied into HWM template

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## *Cluster Analysis*

- ◆ Clusters over a certain line size are considered “Target Clusters”
  - ◆ Target Cluster area and line data are averaged
  - ◆ Target Clusters have cell sites built specifically to serve them with adequate height and channels to meet calculated coverage and traffic load
- ◆ “Non Target Clusters”
  - ◆ Area and line data are aggregated for clusters that do not meet requirements to be Target Clusters
  - ◆ Cell sites are specified to meet total coverage and traffic load for Non Target Cluster area

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## *Data Pre-processing (Cont'd)*

- ◆ HM 5.0a Pre-processing
  - ◆ HM 5.0a is run for all companies in a state. Default values are used.
  - ◆ Data from "Investment Input" output sheet aggregated by wire center into a single Excel worksheet
  - ◆ Aggregated data put into a HWM pre-processing workbook, resulting new worksheet copied into HWM template

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## *Wireless Model Cost Factors*

- ◆ Two cost factors derived from HM 5.0a results are used in HWM
  - ◆ Radio equipment monthly cost factor
    - ◆ The ratio of annual cost and overhead factors to total investment
    - ◆ Applied to wireless investment to determine a monthly cost
  - ◆ Retail uncollectible factor
    - ◆ The cost of uncollectible billings as a % of monthly cost

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## *HWM State Model Template*

- ◆ MS excel 97 workbook with integrated worksheets
  - ◆ “Model Assumptions”
  - ◆ “Lookup Tables”
  - ◆ “Cluster and Cell Analysis”
    - ◆ Cluster pre-processing data
  - ◆ “HM Costs”
    - ◆ HM 5.0a pre-processing data and factors
  - ◆ “WC Data”
  - ◆ “Summary Model Results”

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## *HWM Variable Inputs*

- ◆ Model Assumptions Worksheet
  - ◆ User interface for costs and inputs to the model
    - ◆ Capacity Variables
    - ◆ Backhaul Facilities Expense Variables
    - ◆ Recurring Subscriber Expense Variables
    - ◆ Subscriber and Subscriber Premises Investment, Acquisition and Operating Variables
    - ◆ USF Subsidy Thresholds
  - ◆ Also generates inputs for Cluster pre-processing

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## *HWM Variable Inputs (Cont'd)*

- ◆ **Lookup Tables Worksheet**
  - ◆ **Site Investment**
    - ◆ Varying height towers based on coverage requirement
    - ◆ Provides tower and structure investment detail
  - ◆ **Traffic Analysis and Radio Channel Investment**
    - ◆ Based on offered load from cluster lines in cell
  - ◆ **Microwave System Costs**
    - ◆ Based on backhaul requirements

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## *The WC Data Worksheet*

- ◆ **The "Engine" of HWM**
  - ◆ Performs all wireless cost and investment calculations by wire center
  - ◆ Integrates inputs, data and factors from HM 5.0a and Model Assumptions to produce results
  - ◆ Contrasts wireless vs. wireline results
  - ◆ Identifies wireless or wireline advantages by wire center
  - ◆ Performs certain results checking tests

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## *Summary Model Results Worksheet*

- ◆ State Geographic and Demand Data
  - ◆ General information in, and results from, the model
- ◆ Investment Summary for The Entire State
- ◆ USF Subsidy Summary Results
- ◆ USF Subsidy Analysis
  - ◆ Wireline vs. Wireless

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## *Summary Model Results (Cont'd)*

- ◆ Estimated "Tapered" Subsidy
  - ◆ Analysis of the subsidy requirements if the most cost-effective technology is selected for each wire center
- ◆ Wireless vs. Wireline Costs - All Wire Centers
  - ◆ CLLIs With A Wireline Cost Advantage
  - ◆ CLLIs With A Wireless Cost Advantage
- ◆ Cell Site Coverage Tests
  - ◆ Engineering validation to be sure no CLLIs with a wireless cost advantage have had more cell sites calculated than can realistically be built

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## *Other Model Features*

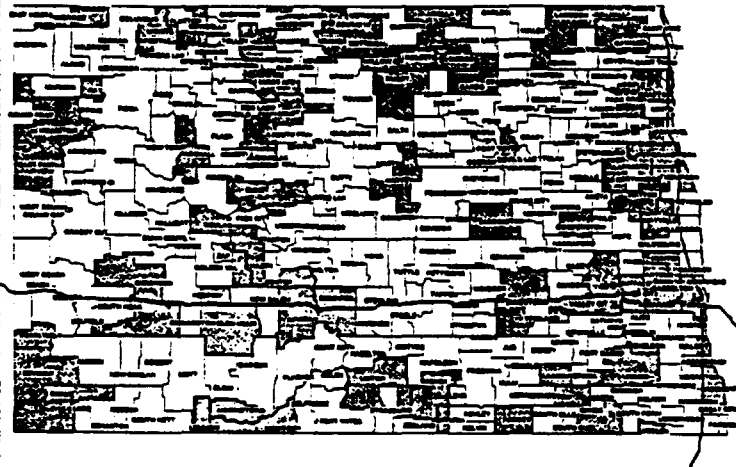
- ◆ ILEC Summary Worksheet
  - ◆ Predefined Pivot Table for additional analysis
- ◆ Mapping Data Worksheet
  - ◆ Highlights certain results for export to MapInfo and similar mapping programs

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North Dakota Wireless vs. Wireline USF Subsidy Analysis  
By Wirecenter Serving Area, Preliminary HAI Wireless Model  
Estimates & HAI Model 5.0a Costs with Default Model Inputs

Wireless Cost Advantage  
Wireline Advantage or No Data



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## CERTIFICATE OF SERVICE

I, Cecelia Burnett, hereby certify that on this 28th day of August, 1998, copies of the Western Wireless Corporation Comments On Model Platform Development were served on the parties listed below by hand delivery or first class mail.

  
Cecelia Burnett

The Honorable William E. Kennard  
Chairman  
Federal Communications Commission  
1919 M Street, N.W., Room 814  
Washington, D.C. 20554

The Honorable Susan Ness, Commissioner  
Chair, Federal-State Joint Board  
on Universal Service  
Federal Communications Commission  
1919 M Street, N.W., Room 832  
Washington, D.C. 20554

The Honorable Harold Furchtgott-Roth  
Commissioner  
Federal Communications Commission  
1919 M Street, N.W., Room 802  
Washington, D.C. 20554

The Honorable Michael K. Powell  
Commissioner  
Federal Communications Commission  
1919 M Street, N.W., Room 844  
Washington, D.C. 20554

The Honorable Gloria Tristani  
Commissioner  
Federal Communications Commission  
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## APPENDIX C

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October 26, 1998

RECEIVED

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Magalie Roman Salas  
Secretary  
Federal Communications Commission  
1919 M St., N.W.  
Washington, D.C. 20554

**Re: Western Wireless Corporation Comments in  
Access Charge Reform, CC Docket No. 96-262, Price Cap  
Performance Review for Local Exchange Carriers,  
CC Docket No. 94-1, Interconnection Between Local  
Exchange Carriers and Commercial Mobile Radio Service  
Providers, CC Docket No. 96-262, and Consumer  
Federation of America Petition for Rulemaking, RM-9210**

Dear Ms. Salas:

On behalf of Western Wireless Corporation, I am enclosing for filing Comments in the proceedings referred to above. These Comments are filed in response to the Commission's Public Notice FCC 98-256 (released October 5, 1998) seeking to refresh the record in these proceedings, and as an *ex parte* filing in CC Docket No. 95-185.

If you have any questions regarding this matter, please contact me.

Respectfully submitted,



David L. Sieradzki  
Counsel for Western Wireless Corp.

Enclosures

cc: Jane Jackson  
Tamara Preiss  
ITS

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matters of	)	
	)	
Access Charge Reform	)	CC Docket No. 96-262
	)	
Price Cap Performance Review for	)	CC Docket No. 94-1
Local Exchange Carriers	)	
	)	
Interconnection Between	)	CC Docket No. 96-262
Local Exchange Carriers and	)	
Commercial Mobile Radio	)	
Service Providers	)	
	)	
Consumer Federation of America,	)	RM-9210
<i>et al.</i> , Petition for Rulemaking	)	
	)	

**COMMENTS OF WESTERN WIRELESS CORPORATION**

Western Wireless Corporation ("Western Wireless"), by its attorneys, hereby submits its Comments in response to the Commission's Public Notice, FCC 98-256, *Commission Asks Parties to Update and Refresh Record for Access Charge Reform and Seeks Comment on Proposals for Access Charge Reform Pricing Flexibility*, released October 5, 1998 ("Public Notice").

Access charge reform presents an opportunity for the Commission to remove historical barriers to competition, such as excessive access charges that are unrelated to costs and the inability of Commercial Mobile Radio Service ("CMRS") providers to assess access charges for originating and terminating long distance

traffic. Western Wireless urges the Commission to establish cost-based access charges and permit CMRS providers to establish access charges for the origination and termination of long distance traffic.

Western Wireless provides cellular and personal communications service ("PCS") to more than 700,000 subscribers under licenses in 22 states, covering over 60 percent of the continental United States, as well as Hawaii. Based upon its experience in providing wireless services to the public, Western Wireless firmly believes that changes need to take place in order for wireless providers to become a true competitor to wireline carriers. First, wireless carriers must be able to interconnect with incumbent local exchange carriers ("ILECs") at cost-based rates. In September 1996, Western Wireless became the first CMRS provider in the nation to seek state commission enforcement of the interconnection requirements of the Telecommunications Act of 1996. Western Wireless was successful in its efforts to establish cost-based interconnection rates, but still faces discriminatory practices by certain ILECs, which it may be forced to bring to the attention of the Commission if state commissions do not address the problems. Second, federal and state universal service support programs must establish a competitively neutral system for distributing support to any carrier that provides universal service. Lastly, access charges must reflect the cost of originating and termination traffic. All carriers, including CMRS providers, that choose to impose access charges for originating and terminating long distance traffic must not be foreclosed from doing so.

**The Unavailability of Implicit Subsidies in Access Charges to CMRS Carriers Constitutes a Barrier To Entry.**

Western Wireless welcomes the Commission's renewed examination of the relationship between access charge reform and local exchange competition. Western Wireless believes that the Commission must take this opportunity to act rapidly and assertively to remove the remaining barriers to local competitive entry. <sup>1/</sup> To the extent that the existing access charge system gives ILECs substantial implicit universal service subsidies that new entrants cannot receive, that system constitutes a major barrier to entry. This is particularly so in rural and high-cost areas, where new entrants cannot hope to compete with the ILECs without a competitively neutral system of universal service support.

CMRS providers, such as Western Wireless, are emerging as the most likely competitors to ILECs in rural and high-cost areas. But CMRS providers' ability to compete is hampered by the Commission's access charge policies. CMRS

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<sup>1/</sup> In the universal service proceeding, Western Wireless is arguing for a number of measures that would advance the overall policy goal of *technological and competitive neutrality* in the system for supporting universal service in high-cost and rural areas. The Commission and the Joint Board already have endorsed this goal. *Federal-State Joint Board on Universal Service*, First Report and Order, 12 FCC Rcd 8776, 8858, 8932, ¶¶ 145, 287 (1997), *pet. for review pending*. Western Wireless has argued that, to achieve this goal, the Commission must ensure, first, that consumers in high-cost and rural areas have the right to choose to obtain supported services from CMRS providers and other new entrants as well as from ILECs. Second, there must be parity between the revenue support available to all eligible telecommunications carriers, regardless of those carriers' technologies, rate structures, or regulatory status. *See Western Wireless Petition for Clarification or Rulemaking* in CC Docket No. 96-45, in the Matter of Federal-State Joint Board on Universal Service, filed October 15, 1998. Third, support must be available for mobile, as well as stationary, services that meet the Commission's definitions of supported universal service, and for wireless as well as wireline local loops.

providers generally do not receive any interstate access charges, and (as discussed below) it is unclear under the Commission's rules whether they are entitled, or even permitted, to collect such charges.

As a result, wireless carriers are frozen out of entering local markets, in two respects. First, even if they obtain certification as eligible telecommunications carriers ("ETCs") under Section 214(e) of the Act, they can receive only the relatively limited *explicit* universal service high-cost support currently available, and cannot receive any of the *implicit* support that ILECs receive. And second, CMRS carriers cannot even replace those missing implicit support flows (at least in part) by recovering interstate access charges from interexchange carriers ("IXCs") (or from ILECs when they collaborate to provide access service), as wireline CLECs can and do.

In this context, the Commission cannot rely primarily on local competition to drive ILEC access charges toward cost, 2/ given that the access charge system itself poses a barrier to local competition. The fact that the implicit universal service subsidies embedded in access rates are available to ILECs, but not their prospective CMRS competitors, is a major impediment to the development of vigorous local competition, especially in rural and high-cost areas. It is notable that, according to the Rural Utilities Service, access charges constitute approximately 64% of the revenues of the small, rural ILECs to which they lend

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2/ *Access Charge Reform*, First Report and Order, 12 FCC Rcd 15982, 16094-98, ¶¶ 262-70 (1997) ("*Access Charge Reform 1st R&O*").

money at preferential rates. <sup>3/</sup> Western Wireless believes it would be optimal for the Commission to rapidly eliminate the implicit subsidies from ILEC access charges, by prescribing access charges to forward-looking economic cost.

In addition – as well as during the interim period before such a prescription is carried out – it is critical that the Commission take action to ensure that all carriers, including CMRS providers, have access to the implicit support flows embedded in access charges. As discussed below, the Commission should take immediate action on a Notice of Proposed Rulemaking that has been pending for almost three years with no action <sup>4/</sup> to give CMRS providers the same treatment as other local competitors with respect to access charges.

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<sup>3/</sup> U.S.D.A. Rural Utilities Service 1997 Statistical Report on Rural Telephone Borrowers at Chart 2.

<sup>4/</sup> *Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, 11 FCC Rcd 5020 (1996) (“*LEC/CMRS Interconnection NPRM*”). In particular, Section IV of that Notice, entitled “Interconnection for the Origination and Termination of Interstate Interexchange Traffic,” *Id.* at 5074-76, ¶¶ 115-117, has been pending without action since January 1996. The Commission’s *Local Competition Order* was adopted based in part on the record from the remaining sections of that NPRM, but did not address the issues raised in Section IV. *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499 (1996) (“*Local Competition Order*”), reversed in part sub nom. *Iowa Utilities Board v. FCC*, 120 F.3d 753 (8th Cir. 1997), U.S. Supreme Court review pending.



**The Commission's LEC/CMRS Interconnection NPRM**  
**Proposed A Solution to the Problem**

In the *LEC/CMRS Interconnection NPRM*, the Commission observed that, while it had determined long ago that CMRS carriers are not required to pay access charges to the ILECs, it never addressed the issue of “whether LECs or IXC’s should remit any interstate access charges to CMRS providers.” 5/ The Commission proposed to answer this question with the following tentative conclusions:

- “CMRS providers should be entitled to recover access charges from IXC’s, as the LECs do, when interstate interexchange traffic passes from CMRS customers to IXC’s (or vice versa) via LEC networks.” 6/
- “CMRS providers [should] be treated no less favorably than neighboring LECs or CAPs with respect to recovery of access charges from IXC’s and LECs for interstate interexchange traffic.” 7/
- “[A]ny less favorable treatment of CMRS providers would be unreasonably discriminatory . . . .” 8/

Wireline LECs (including CLECs as well as ILECs) have long been entitled to receive compensation from IXC’s for originating and terminating traffic -- known as access charges -- because IXC’s cannot serve their customers without the ILEC local network over which calls carried by IXC’s originate or terminate. 9/ But Western Wireless, and to the best of our knowledge, most other CMRS providers, do

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5/ *LEC/CMRS Interconnection NPRM*, 11 FCC Rcd at 5074, ¶ 115.

6/ *Id.* at 5075, ¶ 116.

7/ *Id.*

8/ *Id.*

9/ *Access Charge Reform 1st R&O* at 15990-07, ¶¶ 17-21.

not receive any access charge revenue. As the CMRS industry has grown, however, more and more interexchange calls originate and/or terminate on CMRS systems. <sup>10/</sup> As a result, IXC's are deriving the same benefit from terminating and originating traffic on CMRS systems as they do from relying on the ILEC's local networks for that function. In fact, CMRS providers are establishing calling plans and other products and services that allow mobile phones to function (and be priced) more and more similarly to their wireline counterparts. IXC's, however, are enjoying the benefits of this evolution without compensating CMRS providers by paying access charges as they do to ILEC's. <sup>11/</sup>

Notwithstanding the Commission's recognition that this situation appears to be "unreasonably discriminatory, and . . . interfere[s] with [the] statutory objective . . . to foster development of new wireless services," <sup>12/</sup> it has been nearly three full years since the adoption of the *LEC/CMRS Interconnection NPRM*. CMRS providers still do not collect access charges for originating and terminating

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<sup>10/</sup> *Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Third Report, FCC 98-91, rel. June 11, 1998, at 2-4.

<sup>11/</sup> In situations where three carriers are involved -- for example, an IXC terminating a call to an ILEC, which hands the call for completion to a CMRS carrier -- either the IXC or the ILEC appears to be getting something for nothing. In some cases the IXC may be paying the full access charge to the ILEC, even though the ILEC only performs a transiting function, and the ILEC fails to share the access revenue with the CMRS (as it would with a neighboring ILEC or CLEC). In other cases, the IXC may be paying only a transiting charge to the ILEC and paying nothing to the CMRS provider for terminating the traffic. In either case, the CMRS is deprived of the access charge that it ought to receive.

<sup>12/</sup> *Id.* at 5075, ¶ 116.

IXC traffic. This places CMRS providers at a significant competitive disadvantage as they begin to attempt to capture customers served by ILECs which once enjoyed monopoly status for basic telephone services. In order for CMRS providers to continue to evolve into full local competitors, they must be able to assess and collect access charges when they provide access service -- either independently or jointly with an ILEC. Any other result would be unnecessarily and unlawfully discriminatory. This is particularly true given that a substantial portion of implicit universal service subsidies are embedded in interstate access charges. Until the Commission develops a mechanism for making these subsidies explicit and portable, ILECs should not be the sole recipients of these subsidies. To the extent that CMRS systems are providing the same function for IXC traffic as ILEC local networks, CMRS providers should be compensated in the same manner.

### **Permissive Tariffing**

As the Commission recognized in the *LEC/CMRS Interconnection NPRM*, one of the key stumbling blocks on the road to CMRS collection of access charges may be the lack of a mechanism by which CMRS providers can enforce the collection of access charges from IXCs. <sup>13/</sup> The ILECs collect access charges pursuant to binding tariffs filed with the Commission; but CMRS providers are *barred* from filing tariffs of any kind, including access tariffs, under a so-called

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<sup>13/</sup> NPRM at 5075-76, ¶ 117.

“mandatory forbearance” policy. <sup>14/</sup> It is notable that even when the Commission adopted that policy, it recognized that it may need to modify the policy to allow for permissive tariffing by CMRS providers under certain circumstances, particularly in the context of interconnection developments and interstate access charges. <sup>15/</sup> It is therefore apparent, as the Commission recognized early on, that there is a need to create a mechanism by which CMRS providers can collect access charges.

Western Wireless submits that the Commission should allow (but not require) CMRS providers to file access tariffs to provide for the collection of access charges from IXCs. This will allow CMRS providers to stand on equal footing with LECs to the extent they provide the same functions to IXCs as do the LECs, and it will advance the Commission’s objectives of technological neutrality and fostering entry of new providers into the market for basic telecommunications services.

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<sup>14/</sup> *Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services*, Second Report and Order, 9 FCC Rcd 1411, 1480, ¶ 179 (1994).

<sup>15/</sup> *Id.* (“We recognize, however, that there may be other public interest factors that would make forbearance *with respect to interstate access service* inappropriate.”) (emphasis added).

**Conclusion**

For the reasons stated above, the Commission should expeditiously adopt its tentative conclusion in the *LEC/CMRS Interconnection NPRM* that CMRS providers should be entitled to recover access charges, and should allow for permissive filing of CMRS access tariffs to accomplish this goal.

Respectfully submitted,

WESTERN WIRELESS CORPORATION

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Dated: October 26, 1998

## APPENDIX D

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

December 23, 1998

Magalie Roman Salas, Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, D.C. 20554

Re: Federal-State Joint Board on Universal Service, CC Docket  
Nos. 96-45

Dear Ms. Salas:

On behalf of Western Wireless Corporation, I am enclosing for filing Comments on the Joint Board's Second Recommended Decision in the proceeding referred to above. These Comments are filed in response to the Public Notice, DA 98-2410 (released November 25, 1998).

If you have any questions regarding this matter, please contact me.

Respectfully submitted,



David L. Sieradzki  
Counsel for Western Wireless Corp.

Enclosures

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal-State Board on	)	CC Docket No. 96-45
Universal Service	)	
	)	

**COMMENTS OF WESTERN WIRELESS CORPORATION  
ON SECOND RECOMMENDED DECISION OF THE JOINT BOARD**

Western Wireless Corporation ("Western Wireless"), by its attorneys, hereby submits its Comments on the *Second Recommended Decision* of the Federal-State Joint Board on Universal Service, FCC 98J-7 (released November 25, 1998). These comments are filed pursuant to the Public Notice, *Common Carrier Bureau Seeks Comment on Universal Service Joint Board's Second Recommended Decision*, DA 98-2410 (released November 25, 1998).

Specifically, Western Wireless urges the Commission to reject the Joint Board's recommendation to use study areas, rather than wire centers, as the geographic basis for determining the need for high-cost support, and for distributing such support. These comments demonstrate that such a measure is not competitively neutral, would significantly undermine one of the key tenets of Section 254, and is not necessary to control the overall size of the high-cost fund.



## I. INTRODUCTION AND SUMMARY

Based upon its experience in providing wireless services to the public, 1/ Western Wireless firmly believes that changes need to take place in order for any wireless provider to become a true competitor to wireline carriers. Full local competition cannot emerge unless regulators embrace the policies underlying the Telecommunications Act of 1996 ("1996 Act") and discard antiquated rules and policies that insulate incumbent local exchange carriers ("ILECs") from marketplace forces. This is especially true for rural high-cost areas. On the surface, universal service reform at the federal and state level promises to provide consumers with a choice of service providers for their communications needs. Beneath the surface, however, lurk the vestiges of the old system that undoubtedly will stop competition in its tracks and limit the availability of service options for consumers.

The Joint Board recently reaffirmed the Commission's stated goal of technological and competitive neutrality, and the consequent need to ensure that universal service support is fully portable:

We recommend that the Commission continue with the policy . . . of making high cost support available to all eligible telecommunications carriers, whether they be an incumbent LEC or a competitive carrier, including wireless carriers. We believe that portable support is consistent with the principle of

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1/ Western Wireless provides cellular and personal communications service ("PCS") to subscribers in 22 western states, covering over 60 percent of the continental United States, as well as the state of Hawaii. Western Wireless has a serious interest in providing universal service in high-cost and rural areas. Toward that end, the company has filed for certification as an eligible telecommunications carrier ("ETC") in 13 states and is actively participating in universal service proceedings at the federal and state levels.

competitive neutrality. . . . We continue to support the use of competitive neutrality as a guiding principle of universal service reform. . . . 2/

But certain aspects of the *Second Recommended Decision* leave doubts about whether reforming the current subsidy-ridden system to establish a competitively neutral universal service system is a top priority. Only by making the changes necessary to establish a competitive universal service system will the Commission ensure that consumers in high-cost and rural areas have the right to choose to obtain supported services from CMRS providers (and other new entrants) as well as from ILECs. Western Wireless urges the Commission to keep its focus on the goal of competitive neutrality as the highest priority. To that end, there must be parity between the revenue support available to all ETCs, regardless of those carriers' technologies, rate structures, or regulatory status.

Specifically, in these comments, Western Wireless demonstrates that the Commission should decline to adopt the Joint Board's proposal, in the *Second Recommended Decision*, to measure the need for high-cost support and distribute support based on large "study areas" (typically the entire area within a state served by a given ILEC). Rather, the Commission should adhere to its earlier pro-competitive decision, following the Joint Board's recommendation in its *First Recommended Decision*, to measure the need for high-cost support and distribute such support based on disaggregated geographic areas such as wire centers or

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2/ *Second Recommended Decision*, ¶ 56.

exchanges. If the goal is to limit the overall size of the high-cost universal service fund, the Commission should consider measures other than the Joint Board recommendation, such as use of a wireless cost model.

## **II. THE 1996 ACT REQUIRES THE COMMISSION TO REFORM UNIVERSAL SERVICE POLICY TO ELIMINATE IMPEDIMENTS TO COMPETITION IN HIGH-COST AREAS**

The Commission must fashion its universal service policy in a manner that is consistent with, and lays the groundwork for, fair local competition in both urban/low cost and rural/high cost areas. In adopting the 1996 Act, Congress expressly sought to discontinue the current system of implicit subsidies. The current system funds universal service in rural and high-cost areas primarily through implicit subsidies, supported largely by excessive charges incurred by urban/low-cost, long distance, and business customers. <sup>3/</sup> Instead, Congress directed that high cost and rural customers would be receive support through a mechanism that is explicit, fully portable, and equally available to all providers so as to afford multiple carriers the opportunity and incentive to serve high cost customers. This would simultaneously preserve universal service and provide customers in high-cost areas with a choice among telecommunications service providers. <sup>4/</sup>

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<sup>3/</sup> *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8783-85, ¶¶ 7, 10-11 (1997) (“*Universal Service Order*”).

<sup>4/</sup> *See Second Recommended Decision*, ¶ 21 (“The Commission concluded that the universal service support implicit in rates cannot be sustained if competition emerges in the marketplace, and that removing implicit universal service support

Section 254 directs regulators to establish universal policies that ensure that “[c]onsumers in rural, insular and high cost areas have access to telecommunications . . . services that are *reasonably comparable* to those service provided in urban areas[.]” <sup>5/</sup> This statutory requirement requires not just comparability of *rates*, but also reasonably comparable *opportunities to select among a range of telecommunications services from competing providers*. If federal universal service support is not distributed in a way that enables new entrants to serve high-cost customers to the same degree as incumbents, those customers will be no better off than before passage of the 1996 Act. Indeed, a program that effectively creates incentives for new entrants *not* to serve high-cost customers at all would violate the letter and spirit of the 1996 Act.

Surprisingly, the Joint Board recommendation and the separate statements of some of its members appear to question the fundamental principle of reforming universal service not only to be consistent with emerging local competition in urban and low-cost areas, but also to facilitate and promote local competition in rural and high-cost areas. <sup>6/</sup> These statements do not adequately

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from interstate rates and replacing such support either with improved revenue recovery mechanisms or with explicit support should remain a goal of federal telecommunications reform.”) (*citing Universal Service Order*, 12 FCC Rcd at 8786 ¶ 17); *Id.* at ¶ 56.

<sup>5/</sup> 47 U.S.C. § 254(b)(3).

<sup>6/</sup> See, e.g., *Second Recommended Decision*, ¶¶ 33-34; Separate Statement of Commissioner Susan Ness at 2 (“[T]hat local competition is not yet developing quickly . . . reduces the urgency . . . of replacing implicit support with explicit support.”); Separate Statement of Public Counsel Martha Hogerty at 1 (“Section 254

recognize that the current system of implicit subsidies *itself* is a major barrier to the development of competition in rural and high-cost areas. Implicit subsidies *must* be eliminated and converted to explicit and portable support for the Commission to realize its commitment to competition. Western Wireless strongly encourages the Commission to maintain its commitment to universal service reform and to make the necessary changes to establish a competitive universal service system.

### **III. DETERMINING FORWARD-LOOKING COSTS AND PROVIDING SUPPORT ON A STUDY-AREA-WIDE BASIS WOULD UNDERMINE COMPETITIVE NEUTRALITY**

The Commission should adhere to its initial decision to use a relatively small geographic unit, such as wire centers or exchanges, to measure forward-looking costs for the purpose of assessing the need for high-cost support, and to distribute high-cost support on the same disaggregated geographic basis. This approach, initially supported by the Joint Board in its November 1996 *First Recommended Decision*, 7/ will both target high-cost support in an efficient manner and provide a meaningful opportunity for new entrants to serve rural/high cost

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does not require that regulators take measures to identify and eliminate all implicit support.”); Dissenting Statement of Commissioner Harold Furchtgott-Roth at 5 (“Universal service programs were not created to bring competition to rural America.”).

7/ *Federal Board on Universal Service* CC Docket No. 96-45, Recommended Decision, 12 FCC Rcd 87, 181-82, 232, ¶¶ 178, 277(1) (1996) (“*First Recommended Decision*”).

markets, as the Commission recognized. 8/ By contrast, the *Second Recommended Decision's* proposal to use relatively large study areas for these purposes 9/ would create virtually insurmountable barriers to any carriers other than ILECs providing universal service in high-cost and rural areas, and would severely undercut the Commission's approach to competitive neutrality.

If the Commission were to adopt this new recommendation, the level of universal service support in high cost areas would almost certainly be insufficient to allow competition to take root there, and would preclude entry by carriers other than the ILECs. This is so because calculating the costs of providing ubiquitous service -- and the amount of universal service support necessary to do so -- using study areas averages costs over a much broader area, including large numbers of customers in urban and other low-cost areas. This, in turn, artificially reduces the "cost" calculated, and thus the resulting support levels, to high cost customers by factoring in service provided to customers that cost less than the national average to serve. In some states where the overall average cost level in the study area is below the national average, this method will provide no federal support at all to rural areas within those states that are costly to serve.

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8/ *First Report and Order* at ¶ 193 ("calculating support over small geographic areas will promote efficient targeting of support."); *id.* at ¶ 184 (stating, in the context of defining eligible carriers' service areas, that "service areas should be sufficiently small to ensure accurate targeting of high cost support and to encourage entry by competitors.").

9/ *Second Recommended Decision*, ¶¶ 32-35.

This can best be explained with the following hypothetical. Assume that one ILEC serves the entire state (so that the study area corresponds with the state), and that the statewide average monthly cost of service in a given state is \$40 per line. Further, assume that the cost of service in urban wire centers in the state is \$15 per month, and the cost of service in the rural wire centers is \$200 per month. In addition, assume a revenue benchmark of \$30 per month. Under the universal service reform methodology in the FCC's *Universal Service Order*, \$170 in support would be distributed to the ILEC and to competitive carriers serving the rural wire centers (the \$200 cost minus the \$30 revenue benchmark), and no support would be distributed in the urban wire centers. ILEC implicit subsidies would be eliminated, and new entrants would be able to provide service to rural wire centers and compete with the ILECs in those areas.

By contrast, if the methodology proposed in the *Second Recommended Decision* were applied to the same assumed fact pattern, the ILEC and any competitive carriers would receive \$10 per month for each line served throughout the state (the \$40 statewide average cost minus the \$30 revenue benchmark). That same \$10 per month would be available for every line in both urban and rural areas. In high-cost rural areas, the ILEC would continue to provide service despite the high cost (\$200) and lack of explicit subsidy. The ILEC would do this by drawing on its existing monopoly flow of implicit cross-subsidies (*i.e.*, selling service to urban customers at rates significantly higher than the \$15 cost). It is likely that few, if any, new providers would enter the market, given the high cost and the

minimal level of explicit "high-cost support" available. At the same time, the \$10 per month subsidy would be available in urban areas, artificially stimulating entry, even though it would not be needed.

These examples show that determining costs and providing support on a study-area basis is not competitively neutral and would stand as a disincentive -- and probably a complete bar -- to new entrants' providing service to high cost areas. The examples also show that an explicit universal service mechanism based on study areas effectively perpetuates the implicit subsidization of high cost consumers by urban/non-high-cost customers. Even many rural ILECs recognize the importance of determining the need for support and distributing support payments on as geographically disaggregated a basis as possible. 10/

Distributing federal support on an aggregated study-area-wide basis will condemn rural consumers to perpetual dependence on the ILECs, and on implicit support through the geographic averaging inherent in ILECs' rate structures. Essentially, under this approach, ILECs will be forced to self-subsidize their service to high-cost areas, by continuing the implicit flow of subsidies through geographic averaging and other non-competitively neutral implicit mechanisms. These mechanisms are not available to competitive entrants. Moreover, federal

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10/ See *Common Carrier Bureau Seeks Comment on the Washington Utilities and Transportation Commission's and Twenty Rural Telecommunications Companies' Petition for Agreement with Designation of Rural Company Eligible Telecommunications Carrier Service Areas at the Exchange Level and for Approval of the Use of Disaggregation of Study Areas for the Purpose of Distributing Portable Federal Universal Service Support*, DA 98-1691, released August 24, 1998.



support will flow to lines in some low-cost and urban areas (within study areas with higher-than-average costs), even though no support is needed in those areas. As a result, the *Second Recommended Decision* would have the perverse effect of artificially encouraging competitive entry exclusively in urban and low-cost areas, and discouraging competitive entry in high-cost areas. This is the opposite of what the 1996 Act contemplates for the new competitive telecommunications regime.

The Commission cannot rely on state-created explicit subsidy mechanisms at the intrastate level to cure this problem, as the *Second Recommended Decision* appears to recommend. <sup>11/</sup> First, as is recognized elsewhere in the *Second Recommended Decision*, <sup>12/</sup> most states are far from a point where such systems will be in place by mid-1999. Moreover, state commissions are likely to follow the FCC's lead in these matters, and if the FCC abandons competitive neutrality as a fundamental goal of universal service, there is no reason to believe that states will be any more committed to that goal. Finally, even if state commissions adopted pro-competitive intrastate mechanisms, they could not undo the anti-competitive consequences of the federal system, because federal support will be distributed directly to carriers, not through state commissions.

For all these reasons, the Commission should retain its policy of determining the need for high-cost support and distributing support on the basis of

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<sup>11/</sup> *Second Recommended Decision*, ¶ 37.

<sup>12/</sup> *Id.*, ¶ 61.

disaggregated geographic units, rather than large study areas. Only by doing so will the Commission further the goals of competitive neutrality and fostering competition that are, as demonstrated above, the cornerstones of Section 254.

#### **IV. THE COMMISSION SHOULD CONSIDER COMPETITIVELY NEUTRAL APPROACHES TO CONTROL THE OVERALL SIZE OF THE HIGH-COST FUND**

The Commission can achieve its goal of imposing limits on the overall size of the fund through means other than the competition-damaging study area-based cost methodology advanced in the *Second Recommended Decision*. Western Wireless strongly supports the goal, cited by the Joint Board, of keeping in check the overall size of the universal service high-cost fund. <sup>13/</sup> The Joint Board recognized that its “hold harmless” rule, combined with the need to provide additional support to certain states, would cause the federal universal support fund to grow. <sup>14/</sup> Hence, the Joint Board apparently recommended the study area approach, which will reduce the amount of support provided to high cost areas, in part, as a way of keeping the overall size of the fund from growing too large. <sup>15/</sup>

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<sup>13/</sup> *Second Recommended Decision*, ¶ 47 (“the federal high cost support fund should be only as large as necessary [to] ensure that there is balance between consumers who directly receive the benefits of universal service support and those consumers who must pay for the support through their rates”).

<sup>14/</sup> *Id.* at ¶ 49 (“We recognize that some states currently may not receive support sufficient to enable reasonably comparable rates, and thus we believe the support level may rise somewhat.”).

<sup>15/</sup> *See supra*.

However, there are other, competitively neutral ways to accomplish the goal of limiting the overall size of the fund, without adopting the problematic study area mechanism discussed above. For example, as Western Wireless has demonstrated, there are many high-cost exchanges where the cost of service would be significantly lower if wireless, rather than wireline, technologies are used. <sup>16/</sup> By basing support on the results of a wireless cost model in those exchanges, the overall size of the fund could be limited. <sup>17/</sup> Another way of accomplishing the goal of keeping the overall size of the fund in check would be to employ a higher revenue benchmark, an issue that remains open in this proceeding. Both of these approaches accomplish the same goal as the study-area approach -- limiting the overall size of the fund -- but unlike that approach, they do so in a competitively neutral manner. The Commission should look to such competitively neutral policies, rather than adopting a Joint Board recommendation that is not competitively neutral and that will essentially leave consumers in rural areas to perpetual reliance on monopolistic ILEC provision of basic telecommunications services.

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<sup>16/</sup> See Western Wireless Corporation Comments on Model Platform Development, in CC Docket Nos. 96-45 and 97-160, filed August 28, 1998.

<sup>17/</sup> Western Wireless intends to submit its wireless cost model to the Commission in the very near future.

## V. CONCLUSION

For the foregoing reasons, the Commission should reject the Joint Board's new recommendation that universal service costs and support be determined on a study-area basis. Instead, the Commission should retain the current policy, initially recommended by the Joint Board and adopted by the Commission, of determining costs and support at the wire center level.

Respectfully submitted,

WESTERN WIRELESS CORPORATION

By: \_\_\_\_\_

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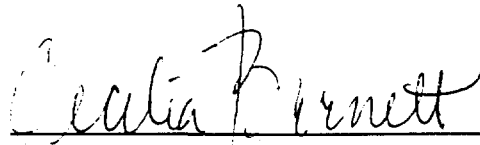
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Counsel for Western Wireless Corporation

Dated: December 23, 1998

## CERTIFICATE OF SERVICE

I, Cecelia Burnett, hereby certify that on this 23rd day of December, 1998, copies of the Western Wireless Corporation Comments on the Second Recommended Decision of the Joint Board on Universal Service were served on the parties listed below by hand delivery or first class mail.



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